

CLAIMS

1. An array speaker system including an array speaker, which is constituted by a plurality of speaker units arranged in an array and which emits audio signal beams with predetermined time differences therebetween so as to control sound directivity, said array speaker system characterized in that a relatively large weight is imparted to a center speaker unit, and relatively small weights are imparted to peripheral speaker units in the array speaker,

wherein differences between the weight imparted to the center speaker unit and the weights imparted to the peripheral speaker units in the array speaker are reduced with respect to low-frequency components of input audio signals in comparison with differences between the weights applied to high-frequency components.

2. An array speaker system including an array speaker, which is constituted by a plurality of speaker units arranged in an array and which emits audio signal beams with predetermined time differences therebetween so as to control sound directivity, said array speaker system characterized in that with respect to high-frequency components of input audio signals, a relatively large weight is imparted to a center speaker unit, and relatively small weights are imparted to peripheral speaker units in the array speaker,

wherein with respect to low-frequency components of the input audio signals, a same weight is imparted to all of the center speaker unit and all of the peripheral speaker units in the array speaker.

3. An array speaker system including an array speaker, which is constituted by a plurality of speaker units arranged in an array and which emits audio signal beams with predetermined time differences therebetween so as to control sound directivity,
said array speaker system characterized in that the input audio signals are divided into three frequency bands including low-frequency components, intermediate-frequency components, and high-frequency components;
with respect to the high-frequency components of input audio signals, a relatively large weight is imparted to a center speaker unit, and relatively small weights are imparted to peripheral speaker units in the array speaker;
with respect to the intermediate-frequency components of the input audio signals, differences between the weight imparted to the center speaker unit and the weights imparted to the peripheral speaker units in the array speaker are reduced in comparison with differences between the weights imparted to the high-frequency components, or a same weight is imparted to all of the center speaker unit and all of the peripheral speaker units in the array speaker;
with respect to low-frequency components of the input audio signals, a same weight is imparted to the center speaker unit and the peripheral speaker units in the array speaker without applying the time differences to the speaker units.